

Chapter Six – Section 4(f) and Section 6(f)
Evaluations



SECTION 4(f) EVALUATION/SECTION 6(f)

6.1 Section 4(f)

6.1.1 Section 4(f) Evaluation

Section 4(f) of the Department of Transportation Act of 1966 requires a project team to determine if feasible or prudent alternatives exist that would avoid use requiring Section 4(f) evaluation. Use occurs when property from a Section 4(f) site is:

- Permanently incorporated into a transportation project.
- When there is temporary occupancy of Section 4(f) property that is adverse in terms of the statue’s preservationist purposes.
- When the proximity of the project impacts are so severe that the protected activities, features or attributes that qualify the resource for protection are substantially impaired.

Section 4(f) resources include public parks, waterfowl and wildlife refuges, and all significant historic and archaeological sites that are listed or are eligible for listing on the National Register of Historic Places (NHRP). If land use cannot be avoided, Section 4(f) requires all possible plans to minimize harm to be included in the environmental documentation.

A park, recreational area or wildlife or waterfowl refuge must be publicly owned, and officially designated as a park, recreational area or wildlife/waterfowl refuge to qualify as a Section 4(f) resource.

Historic and archaeological resources that are either listed in, or are eligible for, the NRHP are eligible as Section 4(f) resources. These resources are not required to be publicly owned. Determinations of eligibility for the NRHP are coordinated with the State Historic Preservation Officer (SHPO), which is the Kentucky Heritage Council.

The draft Section 4(f) evaluation addresses the 4(f) resources that might be affected by the proposed Interstate 66 (I-66) project. The evaluation briefly discusses the following actions:

- The proposed action including the project’s purpose and need and the project’s alternatives selected for study in the Draft Environmental Impact Statement (DEIS).
- The affected Section 4(f) resources.
- The impacts upon the Section 4(f) resources.
- Avoidance alternative considered.
- Measures to minimize impacts.
- Coordination.

6.1.2 Proposed Action

This project had been described in detail in the previous chapters. The purpose and need for the project and its alternatives have been evaluated, and a brief summarization is included here.

6.1.3 Purpose and Need

Refer to sections 2.6 and 2.7 of this document for a discussion of the project purpose and need.

6.1.4 Alternatives Selected for Study in the DEIS

Throughout the planning and development of this project, historic and archaeological professionals have conducted literature research to determine the location of previously identified historic and archaeological sites. The identified resources were placed on an Environmental Resources Map. In addition to these resources, parks, recreational areas, wildlife/waterfowl refuges, and various environmentally sensitive resources have been included on the same map. As the alignments were considered and developed, historic and archaeological consultants conducted reconnaissance surveys (field trips) to identify additional properties and sites with possibility to be eligibility on the NRHP list.

Throughout the decision making process, additional resources have been discovered, and alignments have been shifted, where feasible, to avoid or minimize impacts. The project team avoided encroachment upon previously identified sites throughout these changes.

Some of the alternatives considered were refined due to their impacts upon Section 4(f) resources, and additional alternatives were developed to minimize impacts to the resources. The process of refining alternatives to avoid or miss Section 4(f) resources

continued until reasonable alignments with minimal impacts to avoid these sites and other environmentally sensitive resources were developed. These alternatives have been brought forth for further evaluation. Chapter 3 includes detailed discussions on the development and refinement of these alignments with mapping included at the back of chapter 3.

Based upon engineering studies, field investigations, information contained in Chapters 3-5 and input received from the Citizens Advisory Group meetings and consulting parties, reasonable alternatives recommended for further study and to be evaluated in the DEIS include those alternatives listed in Table 6.1.4.

6.1.5 Section 4(f) Resources

The project corridor features numerous historic resources. In addition, recreational facilities were found to be prevalent throughout the area. Although every effort was made to develop alignments that would avoid or minimize impacts to these resources, it was not possible to avoid some of the sites within the project corridor. The effects vary from total site acquisition to minor impacts on others (including visual and/or noise impacts). Efforts to avoid and/or minimize impacts to Section 4(f) resources were incorporated into the development and locating of all build alternatives for I-66. These efforts resulted in the avoidance of many resources such as parks, recreational areas, and waterfowl and wildlife refuges.

The following pages include discussion on each Section 4(f) resource that may be affected by one or more of the alternatives. The discussion includes a description of the resource, the anticipated effects, avoidance alternatives and mitigation measures to minimize impacts to the site.

Each of the historic resources has been coordinated with the State Historic Preservation Officer (SHPO), which is the Kentucky Heritage Council and with the Advisory Council on Historic Preservation (ACHP), which resulted in the determinations of eligibility for each resource on the NRHP. In addition assessments of the effects on each site were conducted, and the assessments were used to determine impacts on each of the resources as discussed on the following pages.

Recreational Resources Impacted by Alternative

The Rockcastle River

Description: A 15.9 mile segment of the Rockcastle River (River Mile 24.4 to River Mile 8.5) from the Old

Table 6.1.4 – Alternatives Studied in the DEIS

The No-Build Alternative (Pulaski and Laurel Counties)	
Alternative B, Pulaski County	Alternative G, Laurel County
Alternative D, Pulaski County	Alternative H, Laurel County
Alternative B-D, Pulaski County	Alternative I, Laurel County
Alternative K, Pulaski County	Alternative L, Laurel County
Alternative KY 80 Shifted, Pulaski County	Alternative M, Laurel County
Alternative KY 80 Modified, Pulaski County	

Highway 80 bridge to Lake Cumberland has been designated a Kentucky Wild River, and has been nominated as a national Wild and Scenic River. Due to its eligibility to attain national status, this river would be considered a Section 4(f) impact. The Rockcastle River would require Section 4(f) evaluation by all eleven build alternatives. Construction of a bridge would be necessary to span the river.

Section 4(f) avoidance of the Rockcastle River

The only avoidance alternative would be the No-Build Alternative. The No-Build Alternative is neither feasible nor prudent because it fails to address the project’s purpose and need. Placing an alignment in an area above or below the section of the specially designated river would not be feasible or prudent due the distances required to avoid the river.

Avoidance of the Rockcastle River by traversing the river to the north or south, outside the limits of the Kentucky Wild River designated areas would require the crossing to be located north of the Old KY 80 or south were the river meets the backwater of Lake Cumberland. Either of these alternative directions would add substantial costs to the proposed project

and would not be reasonable or prudent solutions to the purpose and need.

Measures to Minimize Harm: The project team would design one or two bridges to provide aesthetic balance to the existing viewshed. If possible, piers would be placed outside the floodplains of the river, and the elevation of the bridge(s) would be situated high enough to minimize or avoid cuts in the existing landscape.

The Sheltowee Trace National Recreation Trail

Description: The Sheltowee Trace National Recreation Trail, a 269-mile multiple use national recreation trail, is named in honor of Daniel Boone. Sheltowee (meaning Big Turtle) was the name given Boone when he was adopted into the Shawnee tribe as the son of the great war chief Blackfish. Boone made several explorations through the area that is now the Daniel Boone National Forest. Many of the creeks, streams and landmarks still carry names given to them by Boone. A section of the Sheltowee Trace National Trail, located entirely in Laurel County, would be impacted by five alternatives – G, H, I, L, and M.

Measures to Minimize Harm: I-66 is an east/west corridor. Due to the 269-mile length of this north/south trail, avoidance was not reasonable and prudent. The overpass will be designed to aesthetically compliment the viewshed of the trail and to ensure that hikers, those riding horses and other recreational users will have clear access to the trail. There are no other Build Alternatives in Laurel County. The only avoidance alternative would be the No-Build Alternative, which fails to address the project’s purpose and need.

The Shopville Community Park

Description: The Shopville Community Park, located within the town of Shopville in Pulaski County, has been purchased in part with a Land and Water Conservation Funds (LWCF) grant for \$53,400 in 2001. This recreational park would be impacted only by the KY 80 Shifted Alternative, requiring total acquisition of the park.

Section 4(f) avoidance of the Shopville Community Park

The four Pulaski County alternatives, other than KY80 Modified serve as avoidance alternatives for the Shopville Community Park.

Measures to Minimize Harm: The KY 80 Modified Alternative is the only alignment to affect this site. Alternatives B, D, B-D and KY 80 Shifted avoid the park. It is recommended that the Project Team avoid use of KY 80 Modified in this area by combining it with another alternative or discounting KY 80 Modified totally and selecting one of the other four Pulaski County alternatives.

The project has been coordinated with the Pulaski County Fiscal Court and the Governor’s Office for Local Development (GOLD), which is the State Liaison Agency for the Department of Interior, National Park Service (NPS). A Section 6(f) appraisal for the Shopville Community Park property and a suitable replacement property would be necessary if this alternative has been selected. GOLD and the Fiscal Court were notified May 2, 2005 and will assist in the Section 6(f) process if necessary.

Daniel Boone National Forest

The Daniel Boone National Forest is located in Kentucky between northern Rowan County (approximately 7 to 8 miles north of I-64 in Rowan County) and the Kentucky/Tennessee border in Whitley and McCreary Counties. The approximate length of the DBNF is 135-140 miles. All Build Alternatives would require passage through the DBNF. According to the FHWA Section 4(f) Policy, 1989, publicly owned multiple-use lands with dispersed recreational activities are not subject to the requirements of Section 4(f). National Forests are considered multiple-use lands comprised of parcels with specifically designated land uses. Coordination with the U.S. Forest Service will be required to determine the land use activities of the Daniel Boone National Forest within the project corridor. This will enable avoidance and/or minimization of impacts to Section 4(f) resources within the DBNF.

Historic Resources Impacted by the Project

For this project, Section 4(f) resources include historic properties that are eligible for the National Register of Historic Places (NRHP). The Cultural Resource Survey from Wilbur Smith and Associates (November 2002 and March 2005) identified five historic resources that would be eligible for, or are listed on the NRHP. Following is a summary of these sites:

Maple Grove School on KY 80, Laurel County (LL69).

Adverse Effect by Alternative I:
Description: The Maple Grove School, built in 1903, is a one-story, front gabled, frame structure. The property is recommended as eligible for listing on the NRHP under Criterion A for its association with the development of education in rural Kentucky. The proposed boundary encompasses the main building, the original well and the yard surrounding the school and totals 9.8 acres. Alternative I would require total demolition or relocation of the school house.

Section 4(f) avoidance of the historic resource

Laurel County alternatives G, H, L and M are avoidance alternatives for this resource.

Measures to Minimize Harm: Mitigation measures include the possible relocation of the school to a compatible site of similar setting and/or State Level 1 documentation. No other build alternatives impact the school.

Johnson House on West Laurel Road, Laurel County (LL182). Affected by Alternatives H and L.

Description: The Johnson House, constructed approximately 1911, is a one-story Craftsman house on a cut stone foundation. The home has three bays and a new one over one window. This property is recommended as eligible for the NRHP under Criterion C for its display of exceptional workmanship through its stone construction method. The Arts and Crafts movement form and style are evident from the incorporation of natural materials, the tapered column porch, central dormer, gabled roof and full width porch. The recommended boundary is based on the home’s architectural merit and includes only the home, front yard and driveway, which provide an appropriate buffer. The outbuildings and remaining land do not

contribute the significance of the era nor is the parcel contributing to an architectural complex landscape.

The exit ramp of Alternatives H and L would cut through the suggested boundary including an edge of the proposed right of way limits requiring one corner of the Johnson House. Visual impact may occur if the alignment is revised to miss the site.

Section 4(f) avoidance of the historic resource

Laurel County alternatives G, I, and M are avoidance alternatives for this resource.

Measures to Minimize Harm: Mitigation measures including Historic American Buildings Survey (HABS) documentation would be required if either of these alternatives is selected.

Wyan House on West Laurel Road (LL183)

Description: The Wyan House is a Craftsman, one-story stone house on a cut stone foundation. It has been estimated that the home was constructed circa 1940. The home features an exterior chimney on the east elevation and two on the interior, rear slope. The site includes a shed, a brick well house, a gambrel roof garage (circa 1952) and a tobacco barn (circa 1957). The property is recommended for eligibility on the NRHP under Criterion C as an exceptional example of a brick house from the Arts and Craft movement. The stylistic elements are evidenced in the exposed rafters and purlins, the full width porch, central dormer and bungalow form. The use of brick on a Craftsman home is unusual for this area.

The boundary for this site includes the house, shed, garage and front yard. The barn is not from the same construction period and is not included. Impacts would occur because the site is within view of Alternatives H and L. These impacts include auditory and visual impacts.

Section 4(f) avoidance of the historic resource

Laurel County alternatives G, I, and M are avoidance alternatives for this resource.

Measures to Minimize Harm: If proper landscaping techniques are utilized, this site’s effects from the

project could be adequately minimized. This may include restoration of the existing tree line.

Buck Creek Bridge on old KY 80 in Stab (PU59): The

Buck Creek Bridge was constructed in 1932. It is a triple truss bridge that remains in good condition. There is a potential for adverse effects because the bridge would be located within the rights of way for KY 80 Modified, KY 80 Shifted, and Alternate K. Description:

The bridge is located just within the rights of way of KY 80 Modified, KY 80 Shifted, and Alternative K. Adverse effects are anticipated for the bridge. The SHPO requested additional research on the Buck Creek Bridge to determine eligibility, and based on results of the additional research the structure is eligible for the NRHP under Criterion C (construction method). The Buck Creek Bridge is a Pratt truss bridge, once common in Kentucky. Approximately half of the Pratt truss bridges in the state remain, and Buck Creek Bridge is one of two remaining in Pulaski County.

Section 4(f) avoidance of the historic resource

Pulaski County alternatives B, D, and B-D are avoidance alternatives for this resource.

Measures to Minimize Harm: If KY 80 Modified, KY 80 Shifted, or K is selected as the Preferred Alternative, mitigation measures will be necessary and may include State Level 1 documentation and/or relocation of the bridge. Alternates B, D, and B-D would avoid the bridge, and if selected, no further mitigation would be necessary.

James-Hansford House (PU62)

Description: PU62 is known as the James-Hansford House. It is a one-story, five bay structure constructed of limestone. The house was built in the central passage plan with flanking rooms and interior stone chimneys. An unusual aspect of the stone facing is the Flemish bond pattern in which the stone was laid. The original mortar is in evidence and is a light color. The exterior has been altered at various times. Alterations include a c. 1870 central gable on the main façade which features bargeboard and a window in the gable end. A second alteration was the addition of a one

story brick porch, which was added in the 1940s. At the rear of the house is a one-story frame addition added in the 19th Century. The original windows were removed circa 1920 and replaced with 3/1 sash. The roof displays a new metal covering. The property is listed on the National Register of Historic Places. The proposed boundary for PU62, the James-Hansford House, encompasses the main building and the surrounding yard. The total area is 28 acres.

Section 4(f) avoidance of the historic resource

Pulaski County alternatives B, D, K, B-D, and KY80 Shifted are avoidance alternatives for this resource.

Measures to Minimize Harm: Mitigation measures to mitigate the noise impact from the proposed KY 80 Modified alternative will be investigated as part of the final design of the project. The feasibility and reasonableness of noise mitigation through the construction of noise walls will be investigated as well as non-barrier related minimization alternatives.

Daryl Whitaker House on Herrin Court (PU337)

Description: The Whitaker House is a one-story, side gabled frame residence built near 1880. The structure’s façade is weatherboard siding and a seam metal roof is featured. A partial width shed porch, supported by wooden posts, is centered on the front. The original entry porch was expanded to the current size in 1967. A large stone chimney was constructed in the right, gabled end, and a newer chimney constructed of concrete block was constructed on the left side. Two outbuildings are associated with this property – a smokehouse/cellar and a rear sloping shed clad in vertical planks. The property is eligible for the NRHP under Criterion C as an intact example of a late 19th Century rural residence. The boundary for the Whitaker House includes the main building, outbuildings and the surrounding yard. The total area includes 13.5 acres. Alternative 80 Shifted would have adverse visual impacts to this site.

Section 4(f) avoidance of the historic resource

Pulaski County alternatives B, D, K, B-D, and KY80 Modified are avoidance alternatives for this resource.

Measures to Minimize Harm: Mitigation measures may include a landscape plan to minimize visual impacts

from Alternative 80 Shifted. No other Alternative affects this site.

Leo Gilliland House on Leo Gilliland Road (PU377)

Description: The Gilliland house is a two-story, side-gable I-house with a large, two-story rear ell. The house is supported by four pillars. The home was built circa 1880. A centrally located ridgeline chimney is featured above the standing seam metal roof. The property is eligible for the NRHP and is an excellent style of architecture that is not common in Pulaski County. The site boundary includes the house, and the surrounding yard. The area totals 24.6 acres. If Alternative B is selected, adverse visual effects to this site would occur, and access would be severed.

Section 4(f) avoidance of the historic resource

Pulaski County alternatives D, K, B-D, KY80 Modified, and KY80 Shifted are avoidance alternatives for this resource.

Measures to Minimize Harm: Mitigation measures may include a landscape plan to minimize visual impacts from Alternative B.

Archaeological Resources Potentially Impacted by the Project

The project was surveyed between September 29, 2003, and June 11, 2004. The surveys focused on areas of high probability for significant archaeological sites. The proposed I-66 project was comprised of six bands, B, D, G, H, I and KY 80. At the time of the survey mapping was limited to small scale maps (1 inch = 24,000 feet) and alignments had not been formulated. A total of 276 acres was surveyed.

Prior to this survey, 20 archaeological sites have been recorded within the project corridor’s area of study. None of these sites were reinvestigated during the project survey. Examinations of site forms, survey reports and the Office of State Archaeology site database were conducted, and it appears that 16 sites have not been evaluated for the National Register of Historic Places. If these sites are affected by the I-66 project, further archaeological investigation will be necessary. The sites are: 15Pu188, 15Pu216, 15Pu217, 15Pu218, 15Pu219, 15Pu245, 15Pu249, 15Pu253, 15Pu254, 15Pu255, 15Pu257, 15L142, 15L143, 15L171,

15Pu324, 15Pu328. Upon selection of the Preferred Alternate, the appropriate sites as listed above will require further archaeological investigation. The nature of further investigations should be based upon the recommendations provided by the surveyor in the site forms and survey reports in consultation with KYTC. The United States Forest Service shall be consulted for sites that have been recorded within the Daniel Boone National Forest.

The archaeological investigation recorded 26 sites during the survey. Thirteen of the sites were historic cemeteries were found within Band B. All of the cemeteries contain gravesites that are at least 50 years old. Many of the cemeteries include graves dating to the second half of the nineteenth century (1800s). All of these cemeteries may be eligible for listing in the NRHP under Criterion D. The research potential of these sites includes possible information about social status, health, mortuary practices, and ethnicity between the mid nineteenth and mid twentieth centuries in southern Kentucky. If the Preferred Alternative encroaches upon any of these sites, further archaeological investigations for 8 of the sites that have not been evaluated for inclusion into the NRHP will be necessary before the construction phase of the project.

Band D also contained 13 archaeological sites, and 8 have not been evaluated for inclusion in the NRHP. Further investigation will be necessary if the Preferred Alternative impacts any of these sites. The investigation will take place prior to the project’s construction phase.

Band G contains 6 sites, and none have been evaluated. Further investigation will be necessary if any of these sites are impacted by the Preferred Alternative.

A total of 3 sites are included within Band H. None of the sites has been evaluated. Further investigation will be required if these sites are impacted by the Preferred Alternative.

Band I contains 9 sites, and have not been recorded. The sites within the right of way limits will require further investigation if the Preferred Alternative is situated within Band I.

The KY 80 Band contains 25 sites, and 20 have not been recorded. Depending upon which alignment is

selected as the Preferred Alternative; sites within the proposed right of way will require further investigation.

Within the project area there were archaeological sites that were not surveyed, but may be eligible for the NRHP. The sites not assessed are identified for each of the six bands in Table 6.1.5-1.

Table 6.1.5-2 illustrates the sites assessed but not eligible for consideration on the National Register of Historic Places.

Table 6.1.5-1 - Summary of Sites Not Assessed with Potential Eligibility for NRHP

Band	Sites Not Assessed – May be Eligible for NRHP
B	15Pu188, 15Pu219, 15Pu 249, 15Pu253, 15Pu254, 15Pu255, 15Pu257, 15Pu474
D	15Pu188, 15Pu249, 15Pu253, 15Pu254, 15Pu255, 15Pu257, 15Pu470, 15pu475
G	15LI42, 15LI43, 15LI71, 15LI344, 15LI345, 15LI347
H	15LI42, 15LI43, 15LI71
I	15LI42, 15LI43, 15LI71, 15LI 341, 15LI 342, 15LI 346, 15LI 349, 15LI 350
KY 80	15LI42, 15LI 43, 15LI 71, 15Pu188, 15Pu 216, 15Pu 217, 15Pu 218, 15Pu219, 15Pu 245, 15Pu 253, 15Pu254, 15Pu255, 15Pu257, 15Pu324, 15Pu328, 15Pu473, 15Pu476, 15Pu478, 15Pu479, 15Pu483

Table 6.1.5-2 - Archaeological Sites Assessed but not Eligible for NRHP

Band	Sites Assessed – Not Eligible for NRHP
B	15Pu138, 15Pu145, 15Pu325, 15Pu472
D	15Pu138, 15Pu145, 15Pu323, 15PU469, 15Pu472
G	No Inventory Sites
H	No Inventory Sites
I	15LI343
KY 80	15Pu138, 15Pu323, 15Pu325, 15Pu481, 15Pu482

6.2 Section 6(f) Resources

6.2.1 Section 6(f) Impacts

Shopville Community Park

Description: The KY 80 Shifted Alternative would impact the entire Shopville Community Park. The park was constructed, in part, using Land and Water Conservation Funds (LWCF). These funds are provided in the forms of grants as provided by the United States National Park Service. The KY 80 Modified Alternative is the only build alternative in Pulaski County that would impact the park. If it is selected, total acquisition of the park would be required, and the park is under Section 6(f) protection, which states that such resources must not, “without the approval of the Secretary (of the Interior), be converted to (anything) other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.”

Measures to Minimize Harm: The Governor’s Office for Local Development (GOLD), was contacted. GOLD is the State Liaison Agency for the United States, Department of Interior, National Park Service (NPS). It has been determined that the Shopville Community Park, located within the town of Shopville in Pulaski County, has been purchased in part with a Land and Water Conservation Fund (LWCF) grant for \$53,400 in 2001. The grant was awarded to the Pulaski County Fiscal Court. The LWCF program provides matching grants to state and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities, and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States. If the KY 80 Shifted alternative is selected, Section 6(f) involvement will be necessary. Section 6(f) requires that all LWCF funded property be replaced with property of similar use and in reasonable proximity to the impacted property. NPS will consider conversion requests if all practical alternatives to the proposed conversion have been evaluated, if fair

market values (appraisals) of the affected property and its identified replacement property have been conducted, and if the proposed replacement property is of reasonable equivalent usefulness and location. If Alternative KY 80 Shifted is selected as the Build Alternative, KYTC right of way agents will work with GOLD and the Pulaski County Fiscal Court to identify, appraise and purchase the appropriate replacement property for the Shopville Community Park.

GOLD and the Pulaski County Fiscal Court were contacted on May 3, 2005, to determine if LWCF funds were involved in the development of the Shopville Park. Upon confirmation, both agencies were notified that if KY 80 Shifted is selected as the Preferred Alternative, the appropriate actions will be taken to ensure the impacted property is replaced with an appraised, identified property that is suitable to the community, the fiscal court and the National Park Service at an equitable, fair market value for similar land use. Upon identification of the intended replacement property, the Pulaski County Fiscal Court will provide appraisal values for both the affected property and the replacement property for review and approval to GOLD. The appraisals and a Memorandum of Agreement between the Pulaski County Fiscal Court and GOLD will be attached in the Appendix of the FEIS if the process is completed prior to submittal of the Final Environmental Impact Statement.